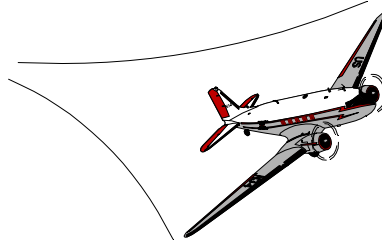


SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

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We post SAIBs on the internet at www.airweb.faa.gov

This is information only. Recommendations are not mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) advises you, owners and operators of **Bombardier DHC-8-100, -200, and -300 aircraft**, of safety information related to roll spoiler actuator retraction. Bombardier released Service Bulletin No. 8-27-92, dated December 18, 2000 to replace the welded-plug piston inside the roll spoiler actuators with a swaged piston blank. *Affected aircraft include DHC-8 models 102, 103, 106, 201, 202, 301, 311 and 315, aircraft serial numbers 003-560.* The affected roll spoiler actuators' serial numbers are 1501-2016.

Background

The roll spoiler actuator can jam at mid extended position and may not be fully retracted. There were reports from the field that some actuator pistons with a welded plug design malfunctioned. As of December 1, 2000, Dowty Aerospace Los Angeles (the actuator manufacturer) has replaced the welded piston with the swaged piston in the units with following serial numbers:

1506	1596	1649	1720	1756	1782	1860	1936
1509	1598	1653	1722	1759	1783	1872	1945
1522	1601	1654	1729	1760	1788	1878	1947
1524	1602	1663	1732	1761	1794	1880	1950
1541	1608	1685	1737	1769	1797	1884	1970
1545	1613	1894	1738	1771	1803	1898	1983
1562	1621	1703	1743	1772	1812	1899	2003
1575	1626	1106	1746	1778	1827	1903	2014
1592	1629	1713	1749	1780	1833	1926	2392
1595	1640	1718	1754	1781	1859	1934	D131

- **NOTE:** Dowty Aerospace assigned Serial No. D131 to a unit received for piston replacement without a nameplate.

For those actuators with missing nameplates, look into the piston rod end to identify the piston configuration. The new piston rod has a Lee plug in the center of the rod (as identified by the sealant in the center of the plug or a smooth center). The welded piston rod has a drill point in the center of the rod.

The welded plug at the base of the actuator piston can become separated and lodged between the piston and the housing. This can restrict the piston travel and prevent full retraction of the roll spoiler actuator from its extended position. Bombardier Service Bulletin No. 8-27-92 checks roll spoiler actuators for presence of the welded piston. If the piston is swaged, no action is required. If the piston is welded, the actuator is replaced or scheduled for future replacement.

Recommendations

To eliminate problems with roll spoiler actuator retraction due to a welded piston plug, we recommend you inspect and identify roll spoiler actuators that require piston plug replacement based on the actuator serial number per Service Bulletin No. 8-27-92, dated December 18, 2000. As indicated, we recommend that you replace the welded plug piston with a swaged piston blank.

For Service Bulletin Copies Contact:

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